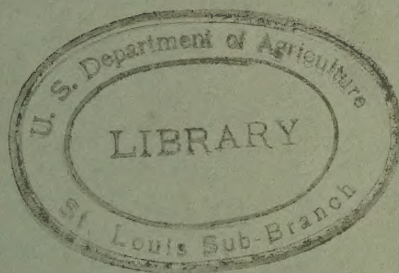


1.933  
IN 76

INSTRUCTIONS  
FOR  
MAKING ALLOTMENT COST ESTIMATES  
(April, 1941)

(For Use In Applications and Loans Division Only)

Prepared by  
E. B. Van Horn

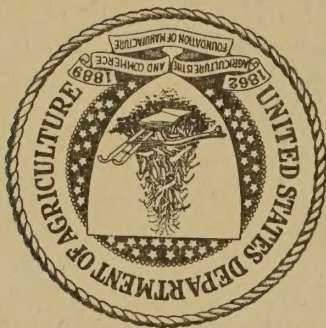


United States Department of Agriculture  
Rural Electrification Administration

U.S.D.A.  
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Instructions for Making Estimates  
Used in Master Budget  
(For Initial Projects Only)

578898

ITEM

1. CONSTRUCTION

- (a) Pole Line Construction, Pole Marking, and Member Services (For Signed Members Only) - Pole line construction will include all poles, conductor and hardware in place up to within approximately 150 feet of members' residences. Pole marking will include the marking, with appropriate signs, of all poles on main roads. Member services will include transformer assembly, loop from the last pole to the member's residence, and yard pole, if necessary.

The old term, "pole line miles," will be discontinued, and total project mileage will be used. It may be defined as the mileage of all wire strung. It includes primary, secondary and wires to the members' residences.

To ascertain total project mileage, "wheel" project maps. To the result thus obtained, add a percentage (to be determined by your experience in your region) to account for that mileage which is necessary to bring service from the main line to the members' premises. The mileage "wheeled" plus the percentage added will equal total project miles.

In cases where the project engineer forwarded Form EX-24, total mileage may be taken from this report without "wheeling" maps.

When mileage has been determined, ascertain the per mile cost of pole line construction from curves and data set up for this purpose. Curves should be made for each state or for portions of states where considerable variance in construction costs is to be expected within the boundaries of a single state. Place the cost per mile in hundreds of dollars on the "Y" axis and place density per mile, in graduated steps, on the "X" axis. Using data from recent bids, plot points on a curve showing the per mile cost of construction according to the project density involved. Connect the various points, and you should find a curve, called a "supply curve," which ascends to the right. When a budget is to be made for a new project, determine its density per mile and proceed along the "X" axis of the curve until this density is reached. The point on the curve directly above the proper density will be the tentative per mile cost of the components of Item 1(a). The figure found on the curve should be varied upward or downward according to your judgment of labor and material costs. The point on the curve should not be considered as final, but only as a starting point for estimation.







Instructions for Making Estimates  
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- (b) Substation - Substation costs are included on the engineering report Form EO-3R. These may be conveniently tabulated as follows:

<u>Project</u>	<u>Date</u>	<u>KVA Capacity</u>	<u>Cost</u>
----------------	-------------	-------------------------	-------------

Substation capacity may be determined roughly by allocating .2 KW for the average farm consumer. At unity power factor, 1 KW equals 1 KVA. Transformers are rated in KVA capacity. Final decision as to the probable size of the substation can probably best be made in consultation with the Rate Section.

- (c) Clearing - Clearing costs are also shown on Engineering Form EO-3R and should be tabulated for each state as follows:

<u>Project</u>	<u>Number of Units</u>	<u>Price per Unit</u>
----------------	------------------------	-----------------------

Instead of a tabulation, a curve might be drawn showing the number of units along the "X" axis and the cost per unit along the "Y" axis. Actual costs should then be plotted, and a curve drawn.

2. SERVICE ENTRANCES (Signed Members Only)

This includes the meter, distribution panel, service entrance cable, fittings and grounding equipment.

An approximate cost of \$25 per member may be used, subject to variations as reason may dictate.

3. ENGINEERING

- (a) Contract - Engineering contracts contain provision for payment on two items:

1. Plans and specifications (including maps). \$1,000 for the first 100 miles plus \$4 for each additional mile. If the project contains less than 100 miles, from the \$1,000 deduct \$4 for each mile under 100.
2. Staking and supervision of construction. No standard estimates can be set up because costs vary widely according to such factors as terrain, weather, accessibility, etc. Costs will be higher in hilly, wooded sections and lower on the level stretches of the Great Plains region. It would be helpful if these costs were plotted on a county outline map of each state, each entry to show project, date of contract, number of miles, and amount allowed per mile for staking and supervision. Consult with your Regional Construction Engineer to see what per mile costs have been averaging for this work.



1. Introduction - The purpose of this report is to provide information on the results of the study conducted by the Department of Health and Human Services, Office of the Assistant Secretary for Health.

2. Objectives - The objectives of the study were to determine the extent of the problem, to identify the causes, and to develop strategies for prevention and control.

3. Methods - The study was conducted using a cross-sectional design. Data were collected from a representative sample of the population. The data were analyzed using statistical methods.

4. Results - The results of the study indicate that the problem is widespread. The majority of the population is affected. The causes are multifactorial, involving both genetic and environmental factors.

5. Conclusions - The study concludes that the problem is a significant public health issue. It is necessary to implement comprehensive strategies to address the problem.

6. Recommendations - The following recommendations are made: (a) Implement a national screening program; (b) Increase public awareness; (c) Conduct further research on the causes and prevention of the problem.

7. Summary - This report summarizes the findings of the study and provides recommendations for action. It is hoped that these findings will be useful to the Department and the public.

8. Acknowledgments - The author wishes to thank the following individuals and organizations for their assistance and support during the course of the study:

9. References - The following references are cited in this report:

10. Appendix - The following information is provided in the appendix:

11. Glossary - The following terms are defined in the glossary:

12. Bibliography - The following list of references is provided:

13. Index - The following index is provided:

14. Distribution - This report is being distributed to the following individuals and organizations:

15. Contact Information - For more information, please contact the following individual:

Instructions for Making Estimates  
Used in Master Budget

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- (b) Force Account - In this case, the engineer will be on the project payroll, and an estimation of the length of his service together with the salary and other allowances per month may be obtained from the Regional Construction Engineer involved.
- (c) Final Inspection - The compensation of inspectors consists of \$11.60 salary per day plus 5¢ per mile for an unlimited mileage plus \$30 per week for subsistence. About 60% of a project is usually inspected. About 25 miles can be inspected in one day. While the above is the method commonly used in determining costs, a charge of \$1 per mile for the total project mileage will be ample to cover the cost of final inspection.

4. LEGAL EXPENSE

- (a) Legal Fee - See attached schedule for computing legal fees.
- (b) Miscellaneous - Use 1/10 of 1% of the total allotment plus \$100.

5. RIGHT-OF-WAY

- (a) Preallotment Expense - Use \$4.50 per mile plus \$500.
- (b) Post-allotment Expense - Use \$10 per mile.

6. DIRECTOR'S FEES

Use \$600. This follows the requirements of General Order No. 108.

7. INSURANCE AND BONDS

Use 1/2 of 1% of total allotment.

8. GENERAL OVERHEAD (During construction period. To be computed as a capital item)

- (a) Superintendent's Salary and Mileage (For the construction period of 9 months only)

- (1) \$150.00 per month up to 150 miles
- (2) 200.00 per month 150 miles to 250 miles
- (3) 250.00 per month all over 250 miles

- (b) Other Salaries (For the construction period of 9 months only)

- (1) \$100.00 per month up to 150 miles
- (2) 150.00 per month 150 miles to 250 miles
- (3) 200.00 per month all over 250 miles

- (c) Office Expense (For the construction period of 9 months only)

- (1) \$ 75.00 per month up to 150 miles
- (2) 100.00 per month 150 miles to 250 miles
- (3) 125.00 per month all over 250 miles



(a) Legal Expenses - In this matter, the Government will be on the losing side, and an estimate of the amount of its liability together with the salary and other allowances for month 10 is submitted from the National Commission on Governmental Organization.

(b) First Inspection - The composition of inspection committee of 100,000 members has been given to the Government by the National Commission on Governmental Organization. The cost of a program is roughly \$100,000. About \$10,000 has been requested for the first inspection. While the above is the amount actually used in the first inspection, the cost of \$100,000 for the first inspection will be required to cover the cost of first inspection.

(c) Legal Expenses - See attached schedule for inspection fees \$100,000.

(d) Travel Expenses - The 1/10 of 1% of the total amount \$100,000.

(e) First Inspection Expenses - See \$100,000.

(f) General Expenses - This includes the expenses of General Office No. 100.

(g) Technical and Other - See 1/10 of 1% of total \$100,000.

(h) General Expenses - (General expenses) To be computed as 1/10 of 1% of total \$100,000.

(i) Technical and Other - (Technical and other) To be computed as 1/10 of 1% of total \$100,000.

(j) Legal Expenses - (For the first inspection period of 1 month only)

(1)	\$100.00 per month as to	\$100.00
(2)	\$100.00 per month as to	\$100.00
(3)	\$100.00 per month as to	\$100.00

(k) Legal Expenses - (For the second inspection period of 1 month only)

(1)	\$100.00 per month as to	\$100.00
(2)	\$100.00 per month as to	\$100.00
(3)	\$100.00 per month as to	\$100.00

(l) Legal Expenses - (For the third inspection period of 1 month only)

(1)	\$100.00 per month as to	\$100.00
(2)	\$100.00 per month as to	\$100.00
(3)	\$100.00 per month as to	\$100.00



Instructions for Making Estimates  
Used in Master Budget

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- (d) Office Equipment - Use \$1,500 for all projects.
- (e) Transportation Equipment - Use \$1,000 for each truck allowed for linemen. Figure 1 truck for each 200 miles or fraction of line. Allow 1 piece of transportation equipment for superintendent at a cost of \$800.00.
- (f) Tools and Maintenance Material - Use \$7.50 per mile of line.
- (g) Cooperative Education - Use \$2.50 per member used in figuring payout.
- (h) Miscellaneous Overhead - \$200.00 for project for the entire 9-month period of construction.

9. MEMBER SERVICES (Potential Members Only - Use percentage of potential members previously determined upon)

See Item 1 for a description of material included in member services.  
Use \$90 for each potential member.

10. SERVICE ENTRANCES (Potential Members Only - Use percentage of potential members previously determined upon)

See Item 2 for a description of material included in service entrances. Costs here will be the same as for Item 2. Use about \$25 for each member.

11. Include here provision for such items as the acquisition of existing utilities, the replenishment of member extension funds on prior projects, the acquisition or construction of headquarters facilities, etc. The item entered should be explained fully.

12. CONTINGENCIES

Use a flat  $2\frac{1}{2}\%$  of the allotment adjusted so as to make the allotment in even figures.



(1) Office Equipment - Use \$1,200 for all equipment.

(2) Transportation Equipment - Use \$1,000 for each truck. Allow 1 truck for each 200 miles or fraction of same. Allow 1 piece of transportation equipment for expenditures at a cost of \$500.00.

(3) Tools and Maintenance Materials - Use \$5.00 per mile of trip.

(4) Cooperative Education - Use \$2.50 per member used in traveling parties.

(5) Miscellaneous Services - \$500.00 for project for the entire 5-year period of construction.

6. Service Expenses (Potential Members Only - Use percentages of potential members previously determined below)

See Item 1 for a description of material included in water budget. Use \$20 for each potential member.

7. Service Expenses (Potential Members Only - Use percentages of potential members previously determined below)  
See Item 2 for a description of material included in water budget. Costs here will be the same as for Item 5. Use \$20 for each member.

8. Forums have been provided for each year as the acquisition of material. In addition, the requirements of member extension funds are given previously. The acquisition or construction of headquarters facilities, etc., for these forums should be explained fully.

9. Construction  
Use a list 2-4 of the amounts allotted as an aid to make the allocation to each forum.



ALLOTMENT COST ESTIMATE

(For Supplemental Projects Only)







ALLOTMENT COST ESTIMATE

(For Supplemental Projects Only)

ITEM

1. CONSTRUCTION

Determine costs as set forth in instructions for initial projects.

2. SERVICE ENTRANCES (SIGNED MEMBERS ONLY)

Determine costs as set forth in instructions for initial projects.

3. ENGINEERING

Determine costs as set forth in instructions for initial projects.

4. LEGAL EXPENSE

(a) Legal Fee - See attached schedule for computing legal fees on supplemental projects.

(b) Miscellaneous - Use 1/10 of 1% of total allotment.

5. RIGHT-OF-WAY

Determine costs as set forth in instructions for initial projects.

6. DIRECTOR'S FEES

Use \$100. This should be sufficient to cover two meetings of the Board to handle affairs relating to the supplemental project.

7. INSURANCE AND BONDS

Use 1/3 of 1% of total allotment.

8. ~~GENERAL OVERHEAD~~ (During construction period. To be computed as a capital item)

(a) Superintendent's Salary and Mileage (For the construction period of 9 months only)

- |     |                              |           |
|-----|------------------------------|-----------|
| (1) | \$ 50.00 per month up to     | 150 miles |
| (2) | 75.00 per month 150 miles to | 250 miles |
| (3) | 100.00 per month all over    | 250 miles |





Allotment Cost Estimate

(For Supplemental Projects Only) - 2 -

(b) Other Salaries (For the construction period of 9 months only):

- (1) \$25.00 per month up to 150 miles
- (2) 40.00 per month 150 miles to 250 miles
- (3) 60.00 per month all over 250 miles

(c) Office Expense (For the construction period of 9 months only):

- (1) \$20.00 per month up to 150 miles
- (2) 30.00 per month 150 miles to 250 miles
- (3) 40.00 per month all over 250 miles

(d) Office Equipment and Supplies - 20 cents per member used in figuring payout.

(e) Transportation Equipment - Use \$1,000 for each truck allowed for linemen. Figure 1 truck for each 200 miles of line.

Review mileage on sections previously allotted and consider project in its entirety in making allowance for number of trucks needed.

(f) Tools and Maintenance Material - Use \$7.50 per mile of line.

(g) Cooperative Education - Use \$2.50 per member for each member estimated to be connected.

(h) Miscellaneous Overhead - \$100.00 for project for the construction period of 9 months only.

9. MEMBER SERVICES (Potential Members Only - Use percentage of potential members previously determined upon)

Use \$90 for each potential member.

10. SERVICE ENTRANCES (Potential Members Only - Use percentage of potential members previously determined upon)

Use approximately \$25 for each potential member.





Allotment Cost Estimate

(For Supplemental Projects Only) - 3 -

11. This is a special item reserved for purposes described in instructions set up for initial projects.

12. CONTINGENCIES

Ascertain unexpended and unneeded balance on previous sections. If no balance is available, use a flat  $2\frac{1}{2}$  percent of the supplemental allotment. If balance available exceeds  $2\frac{1}{2}$  percent of supplemental allotment, make no allowance for contingencies. If balance available is less than  $2\frac{1}{2}$  percent of supplemental allotment, add an amount which will make it equal to  $2\frac{1}{2}$  percent of supplemental allotment.

Where a sizable unexpended balance is available from previous allotments, use this for the construction of supplemental projects by ear marking with H. O. Hinson, and deduct the amount of the unexpended balance from the total allotment figure required on the Master Budget. Make a notation on the Budget to show that this has been done.





GENERAL INFORMATION





## EXHIBIT A

SCHEDULES FOR COMPUTING LEGAL FEES

Formula for Original Allotment			Formula for Supplementary Allotments	
	<u>Base</u>	<u>Rate per \$1000 of the allotment</u>	<u>Base</u>	<u>Rate per \$1000 of the allotment</u>
Alabama	700	4.83	375	4.83
Arizona	625	2.65	300	2.65
Arkansas	625	4.27	300	4.27
California	625	3.20	300	3.20
Colorado	625	2.90	300	2.90
Delaware	625	3.95	300	3.95
Florida	625	4.80	300	4.80
Georgia	625	5.07	300	5.07
Idaho	625	4.32	300	4.32
Illinois	625	4.44	300	4.44
Indiana	700	3.90	375	3.90
Iowa	625	3.93	300	3.93
Kansas	825	4.07	500	4.07
Kentucky	725	4.84	400	4.84
Louisiana	625	4.67	300	4.67
Maine	700	3.00	375	3.00
Maryland	700	4.50	375	4.50
Michigan	625	4.75	300	4.75
Minnesota	625	3.93	300	3.93
Mississippi	625	4.63	300	4.63
Missouri	625	4.07	300	4.07

SEE FOLLOWING PAGES AND EXCEPTIONS TO THESE SCHEDULES





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Formula for Original Allotment			Formula for Supplementary Allotments	
	<u>Base</u>	<u>Rate per \$1000 of allotment</u>	<u>Base</u>	<u>Rate per \$1000 of the allotment</u>
Montana	625	3.02	300	3.02
Nebraska	700	3.80	375	3.80
Nevada	625	2.85	300	2.85
New Jersey	625	4.36	300	4.36
New Mexico	625	3.22	300	3.22
N. Carolina	625	4.50	300	4.50
N. Dakota	625	3.53	300	3.53
Ohio	625	4.60	300	4.60
Oklahoma	625	5.44	300	5.44
Oregon	625	3.35	300	3.35
Pennsylvania	625	4.36	300	4.36
S. Carolina	625	4.33	300	4.33
S. Dakota	625	3.20	300	3.20
Tennessee	625	4.07	300	4.07
Texas	625	5.56	300	5.56
Utah	625	2.90	300	2.90
Vermont	625	3.47	300	3.47
Virginia	700	4.16	375	4.16
Washington	700	3.63	375	3.63
W. Virginia	625	4.20	300	4.20
Wisconsin	625	3.97	300	3.97
Wyoming	625	2.85	300	2.85

SEE FOLLOWING PAGES AND EXCEPTIONS TO THESE SCHEDULES





Name		Address		City	
1	John Doe	123 Main St	Anytown	CA	90001
2	Jane Smith	456 Elm St	Springfield	IL	62701
3	Robert Johnson	789 Oak St	Chicago	IL	60601
4	Mary Williams	101 Pine St	Los Angeles	CA	90001
5	James Brown	202 Cedar St	San Francisco	CA	94101
6	Patricia Davis	303 Birch St	New York	NY	10001
7	Michael Miller	404 Maple St	Washington	DC	20001
8	Linda Wilson	505 Walnut St	Seattle	WA	98101
9	David Moore	606 Cherry St	Portland	OR	97201
10	Susan Taylor	707 Elm St	Denver	CO	80201
11	Christopher Lee	808 Oak St	Phoenix	AZ	85001
12	Nancy White	909 Pine St	San Diego	CA	92101
13	Anthony Green	1010 Cedar St	Dallas	TX	75201
14	Kimberly Adams	1111 Birch St	Houston	TX	77001
15	Steven Baker	1212 Maple St	Phoenix	AZ	85001
16	Michelle Hall	1313 Walnut St	San Antonio	TX	78201
17	Gregory King	1414 Cherry St	Fort Worth	TX	76101
18	Deborah Wright	1515 Elm St	San Jose	CA	95101
19	Eric Scott	1616 Oak St	San Francisco	CA	94101
20	Angela Lopez	1717 Pine St	San Francisco	CA	94101
21	Timothy Hill	1818 Cedar St	San Francisco	CA	94101
22	Christina Young	1919 Birch St	San Francisco	CA	94101
23	Benjamin Clark	2020 Maple St	San Francisco	CA	94101
24	Sarah Evans	2121 Walnut St	San Francisco	CA	94101
25	Jonathan King	2222 Cherry St	San Francisco	CA	94101
26	Rebecca Green	2323 Elm St	San Francisco	CA	94101
27	Adam White	2424 Oak St	San Francisco	CA	94101
28	Hannah Brown	2525 Pine St	San Francisco	CA	94101
29	Isaac Miller	2626 Cedar St	San Francisco	CA	94101
30	Olivia Wilson	2727 Birch St	San Francisco	CA	94101
31	Lucas Moore	2828 Maple St	San Francisco	CA	94101
32	Chloe Taylor	2929 Walnut St	San Francisco	CA	94101
33	Leo Anderson	3030 Cherry St	San Francisco	CA	94101
34	Grace Scott	3131 Elm St	San Francisco	CA	94101
35	Henry Adams	3232 Oak St	San Francisco	CA	94101
36	Victoria Baker	3333 Pine St	San Francisco	CA	94101
37	Samuel Hall	3434 Cedar St	San Francisco	CA	94101
38	Abigail King	3535 Birch St	San Francisco	CA	94101
39	Julian Wright	3636 Maple St	San Francisco	CA	94101
40	Madison Lopez	3737 Walnut St	San Francisco	CA	94101
41	Christopher Hill	3838 Cherry St	San Francisco	CA	94101
42	Isabella Young	3939 Elm St	San Francisco	CA	94101
43	Robert Clark	4040 Oak St	San Francisco	CA	94101
44	Charlotte Green	4141 Pine St	San Francisco	CA	94101
45	William White	4242 Cedar St	San Francisco	CA	94101
46	Amelia Brown	4343 Birch St	San Francisco	CA	94101
47	James Miller	4444 Maple St	San Francisco	CA	94101
48	Harper Wilson	4545 Walnut St	San Francisco	CA	94101
49	Benjamin Moore	4646 Cherry St	San Francisco	CA	94101
50	Evelyn Taylor	4747 Elm St	San Francisco	CA	94101

DEVIATIONS FROM REGULAR SCALE FOR COMPUTING LEGAL FEES

1. For computing legal fees for allotments under \$50,000
  - (a) The Legal fee for original allotments under \$50,000 and over \$25,000 should be computed at the rate of 1% of the allotment and legal fees for allotments below \$25,000 should be computed at the rate of 1-1/3% of the allotment.
  - (b) Legal fees for supplemental allotments under \$50,000 and over \$25,000 should be computed at the rate of 2/3 of 1% of the allotment. Legal fees for supplemental allotments under \$25,000 should be computed at the rate of 8/9 of 1%.
2. For computing legal fees for allotments made to a City  
The legal fees for these allotments will vary in every case depending upon the prior relationship between attorney and City. For these allotments you should consult with the Legal Division before submitting the budget.
3. For computing legal fees for allotments for the purpose of acquiring existing lines  
Please consult with the Legal Division before submitting this type of an allotment.
4. For computing legal fees for allotments made to a project within sixty days of a prior allotment  
Consult with the Legal Division before submitting budget for an allotment of this nature.
5. For computing legal fees for allotments made separately but at the same time  
These allotments contemplate one set of Loan Contract documents and the fees should be reduced by \$300. In other words, one base fee would be disregarded in computing the fees in accordance with the schedules. The final fees allocated to each allotment should be pro rated.
6. For computing legal fees for allotments containing an abnormal percentage of funds for purposes other than construction, such as member connections, operations, etc.

Please take these matters up separately with the Legal Division.

7. Basis for computation of legal fees for services in connection with allotments for the construction of Generating Plants.

Use following scales instead of schedules shown in "Exhibit A":

<u>Original Allotment</u>	<u>Supplemental Allotments</u>
A base fee of \$350, plus \$1.00 for each \$1000 of the allotment	A base fee of \$225, plus \$1.00 for each \$1000 of the allotment



EXEMPTION FROM REGULAR RATES FOR CERTAIN LOCAL TAXES

1. For computing local fees for allocations made to a City:  
(a) The local fee for original allocations under \$25,000 and over \$25,000 should be computed at the rate of 1% of the allocation.  
(b) The local fee for supplemental allocations under \$25,000 and over \$25,000 should be computed at the rate of 1/2% of the allocation.  
(c) The local fee for allocations under \$25,000 and over \$25,000 should be computed at the rate of 1/2% of the allocation.
2. For computing local fees for allocations made to a City:  
The local fee for these allocations will vary in every case depending upon the relationship between the City and the Local Division. The local fee should be computed at the rate of 1/2% of the allocation.
3. For computing local fees for allocations for the purpose of acquiring selected lines:  
These amounts with the Local Division before submitting this type of an allocation.
4. For computing local fees for allocations made to a project within city limits of a local division:  
These amounts with the Local Division before submitting budget for an allocation of this amount.
5. For computing local fees for allocations made separately, but at the same time:  
These allocations should be computed at the rate of 1/2% of the allocation. The local fee should be computed at the rate of 1/2% of the allocation. The local fee should be computed at the rate of 1/2% of the allocation.
6. For computing local fees for allocations containing an element of generalization of funds for purposes other than construction, such as general maintenance, operations, etc.  
These amounts should be computed separately with the Local Division.
7. State the computation of local fees for allocations in accordance with the following table for the computation of local fees:  
The following table for the computation of local fees is shown in Exhibit A:  

Amount of Allocation	Local Fee
Under \$25,000	1% of the allocation
\$25,000 and over	1/2% of the allocation







